APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,027	04/26/2005	Devon Matthew Johnson	PU020450	2193

24498 7590 04/18/2006		EXAMINER
THOMSON LICENSING INC.		NATNAEL, PAULOS M
PATENT OPERATIONS		

ART UNIT	PAPER NUMBER
2622	

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DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/533,027	JOHNSON ET AL.
Office Action Summary	Examiner	Art Unit
	Paulos M. Natnael	2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-20* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims **1-20** are rejected under 35 U.S.C. 102(b) as being anticipated by Ohno,

U.S. Pat. No. 5,512,938.

Considering claims 1,2,11,12,18 Ohno discloses at teleconference terminal comprising

a CPU and video codec and audio codec, synchronization slip control software. Ohno

discloses the PC-based teleconference terminal 200 includes a PC 110 and a video

codec unit 130, a network control unit 220 and an audio codec unit 240 which are all

constructed on the same expansion board, with the video codec unit 130, the audio

codec unit 240 and the network control unit 240 all connected to the computer bus 114

so as to be able to transfer audio data, video data, data and AV multiframes between

themselves. <u>The audio codec unit 240 is equipped with a[n] audio clock generation unit</u>

<u>241 for generating an audio sampling signal of 8 kHz through self-excited oscillation.</u>

The CPU 111 in the PC 110 executes frame alignment by executing the AV

multiplexer/separator software 212 stored in the memory 112 and executes the AV

multiframe conversion and separation for H series recommendation on the CCITT, as

well as adjusting any shortages or surpluses of reproduction audio data which arise due

to synchronization slips between the audio sampling clock and the network clock by

executing the synchronization slip control software 211. See Abstract of the disclosure.

Furthermore, Ohno teaches "... when the amount of audio code 441 or audio

code 541 which is queued in the transmission audio buffer 440 or in the reception audio

buffer 540 is below a value set as the low mark 433 or the low mark 533, the CPU 110

judges that such a synchronization slip will occur due to the shortage of audio data.

When there is a shortage of audio data due to a synchronization slip on transmission,

then the CPU 111 sends the audio code with the lowest amount of audio code out of all

of the queued audio code in the transmission audio buffer 440 twice to the transmission

buffer 454... In the same way, when the amount of audio code 441 or audio code 541

which is queued in the transmission audio buffer 440 or in the reception audio buffer

540 is above a value set as the high mark 432 or the high mark 532, the CPU 111

judges that a synchronization slip will occur due to a surplus of audio data. When there

is a synchronization slip due to a surplus of audio data on transmission, then the CPU

111 ignores the audio code with the lowest amount of audio energy and, by not sending

it to the transmission buffer 54, discards the audio code... In the same way when there

is a surplus of audio data due to a synchronization slip on reception, then the CPU 111

ignores the audio code with the lowest amount of audio energy and, by not sending it to

the audio codec circuit 143, discards the audio code. See col. 7, line 17 through col. 8,

line 8) Ohno discloses *"The CPU 111 investigates whether there is an empty storage area in the reception video buffer 504 and in the reception audio buffer 540 (S704), and if there is, executes a lip-synch process, more specifically the delaying of the separated audio code 541 of about 10 msec with regard to the video code 505, and queues the video code 505 in the reception video buffer 504 and the audio code 541 in the reception audio buffer 540, respectively (S705)."* [emphasis added]

See col. 15, lines 39 through col. 16 lines 64. Thus, Ohno teaches all claimed subject matter.

As to claims **3-7,13-17,19,20**, Ohno teaches judging whether the <u>buffer 540 is below a value set as the low mark 433 or the low mark 533</u>. See col. 7, line 17 through col. 8, line 8. Ohno further teaches a high mark which is a predetermined upper limit. On col. 9, staring at line 42 Ohno discloses: "The audio synchronization control information 531 is the control information for compensating for the effects on audio reproduction caused by synchronization slips, and is made up of a high mark 532, a low mark 533 and an insertion segment pointer 534. (54) <u>The high mark 532 shows the predetermined upper limit for use of the reception audio buffer 540, which is for overseeing the actual used amount of the reception audio buffer 540 during reception.</u> For example, when the reception audio buffer 540 is capable of storing 8 pieces of audio code 541, and an upper limit for the storage of audio code 541 is set as 5 pieces, then the high mark 532 shows [5]. <u>The low mark 533 shows the predetermined lower limit for use of the reception audio buffer 540,</u> which is for overseeing the actual used amount of the

reception audio buffer 540 during reception. For example, when the reception audio

buffer 540 is capable of storing 8 pieces of audio code 541, and a lower limit for the

storage of audio information 541 is set as 1 piece, then the low mark 533 shows [1]."

[emphasis added] Therefore, Ohno inherently discloses mid-point limit because the

skilled in the art would recognize the system of Ohno would able to easily calculate a

mid-point from the given lower and upper limits, and also perform other desired

calculations.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims **8-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ohno, U.S. 5,512,938 in view of Fung, U.S. 5,949,410.

Ohno discloses synchronization of audio and video signals. Ohno does not specifically

disclose the well known MPEG signal or HDTV audio/video synchronization; however

Ohno discloses TV codec used in coding and decoding television signals (see col. 1).

Fung teaches synchronizing audio and video frames in an MPEG presentation system.

(Note that the teleconferencing system of Ohno is also a presentation system). It would

have been therefore obvious to the skilled in the art at the time the invention was made

to modify the video and audio synchronization of Ohno by providing the presentation

system of Fung by adopting it to TV systems that utilize the MPEG and HDTV standards.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Noske et al., U.S. *4,851,909* discloses maintaining audio/video sync in television signal read out from a digital buffer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (571) 272-7354. The examiner can normally be reached on 9am - 5:30pm M,W, F (7am-3:30pm T,Th).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paulos M. Natnael
Primary Examiner
Art Unit 2622

PMN
April 15, 2006